

The Quick Guide to Earned Value Management in WorkLenz, Version 2

Note: This is version 2 of this document. The WorkLenz EVM methodology was changed in March 2005. This version of the document reflects this methodology change.

Introduction

The purpose of this brief guide is to provide the simplest and easiest mechanism for creating and maintaining earned value management (EVM) data in WorkLenz. This document assumes that:

- The investment/project has only one licensed WorkLenz user and this user has a WorkLenz account;
- The licensed user has had WorkLenz training and can use WorkLenz reasonably well¹;
- The investment/project manager already has some type of project plan set up in WorkLenz;
- This is a project with only three levels: project, phase, and task. No “nested phases” have been created;
- The investment/project has a task-level project budget;
- The project manager can estimate the percent complete for each of the project tasks on an ongoing basis;
- All FTE/staff costs will be entered as expenses (not in the hourly timesheet); and
- The WorkLenz user can record actual costs as they are paid (“cash basis”) or as the expenses are incurred (“accrual basis”).

Prerequisites for Computing EVM

Before computing EVM measurements the following key elements are required:

- A project plan,
- Schedule and completion data, and
- Budget and cost data.

If you do not have this information, use the table below for guidance on how to get this into WorkLenz:

¹ If you have had the WorkLenz training, but have not used it in a while you may want to review the WorkLenz training guide at http://www.ocio.usda.gov/cpic/doc/USDA_WorkLenz4.7User_Instruction_Manual.pdf

If you need to enter in WorkLenz . . .	Then . . .
A Project Plan	<u>Either</u> 1. Create a project plan with Phases and Tasks per the guidance in this document, Or 2. Enter into WorkLenz your existing project plan that resides in another tool. Very detailed plans should be summarized before entering into WorkLenz. (For assistance, please call Metier at (202) 965-9500 or toll free at (877) 965-9501.)
Schedule and Completion Data	Once you have Phases and Tasks identified, follow the guidance in this document to create your initial data for these elements (see page 3)
Budget and Cost Data	Once you have Phases and Tasks identified, follow the guidance in this document to create your initial data for these elements (see page 4)

Editing the Project Plan

To start, locate your investment/project in the WorkLenz hierarchy. If you want to, edit the project-level project data (see the screen shot below). In the “Edit Project” screen, you only have to fill out the items in **bold**. You can leave the other items blank. “Save” this screen when you are done.

WorkLenz - Project Administration - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://worklenz.training.usda.gov/Admin/Project/ProjectAdmin.aspx?action=edit&projid=1

Edit Project

Test EV Project

Portfolio Program Project Phase Task
Reports Personal Support Logout

Items in Bold are required!

NOTE: If an actual complete date is provided the project status will be set to 'Closed'.

Project Title: Test EV Project

ATTRIBUTES

Type: Major Select

Category: Growth

Size of Work Week: Weekly **First Day of Work Week:** Monday

Budget: 0 **Status:** Open

(no commas)

Description:

ESTIMATES

Start Date: mm-dd-yyyy **Complete Date:** mm-dd-yyyy

ACTUALS

Start Date: mm-dd-yyyy **Complete Date:** mm-dd-yyyy

Save Cancel

Done

Importance of Task Level Data

WorkLenz EVM computations are derived from data entered at the Task level in WorkLenz. Most of the entry boxes at the Phase- and Project-level are not used and can be left blank.

Editing a Phase

Create a new project phase or edit an existing phase. In either case, in the “Edit Phase” screen you only have to fill out the required items in **bold**. You can leave the other items blank. “Save” this screen when you are done.

WorkLenz - Phase Administration - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://worklenz-training.usda.gov/Admin/Phase/PhaseAdmin.aspx?action=edit3phased=12

WorkLenz

Logged in as John H. Berger

Phase 1

Portfolio Program Project Phase Task

Reports Personal Support Logout

Items in Bold are required!

Phase Title: Phase 1

Parent Phase: -Select A Parent Phase-

Type: Alternative Analysis

Status: Open

Percent of Project: 5%

Budget: 0 ### ... (no commas)

Milestone Date: mm-dd-yyyy

Description:

ESTIMATES

Start Date: mm-dd-yyyy **Complete Date:** mm-dd-yyyy

ACTUALS

Start Date: mm-dd-yyyy **Complete Date:** mm-dd-yyyy

Save Cancel

Read worklenz-training.usda.gov

Adding Multiple Phases or Tasks

It is possible in WorkLenz to quickly add multiple new Phases or Tasks. For more information, see pages 28 and 33 of the WorkLenz v4.7 Training Guide at http://www.ocio.usda.gov/cpic/doc/USDA_WorkLenz4.7User_Instruction_Manual.pdf.

Adding Task-level Schedule and Completion Data

Within a phase, create a new task or edit an existing task. In either case, fill out the **bold** items in the Edit Task screen. Then fill in the Actual Start Date, the Actual Complete Date, and the Percent Complete as is applicable. Leave the “Duration” at “0:00”. (Note: Unlike before, the Percent Complete entered in the task has a significant impact on the reported schedule-based performance (i.e., SPI)).

You will have to update this screen as the task proceeds until you 1) enter an Actual

Complete Date, 2) change the Percent Complete to “100%”, or 3) change the Status of the Task to “Closed”. “Save” this screen when you are done.

WorkLenz Edit Task
logged in as John Rehberger
Phase 1 Task 1

Items in Bold are required!
NOTE: If an actual complete date is provided the task status will be set to 'Completed'.

Task ID: 70839
Task Title: Phase 1 Task 1
Assigned To: Rehberger, John (Generic Role on team: EV Team) Assign To Team

ATTRIBUTES
Project Phase: Phase 1
Task Type: Work Activity
Billable: Yes
Priority: 1
Deadline Date: mm-dd-yyyy
Churnable: Yes
Expected: Yes
Labor Cost Category: ☐ D/M/E ☐ SS
Description:

STATUS
Status: Open
Percent Complete: 50%

ESTIMATES
Start Date: 10-01-2004 mm-dd-yyyy Complete Date: 12-01-2004 mm-dd-yyyy Duration: 0:00 hours

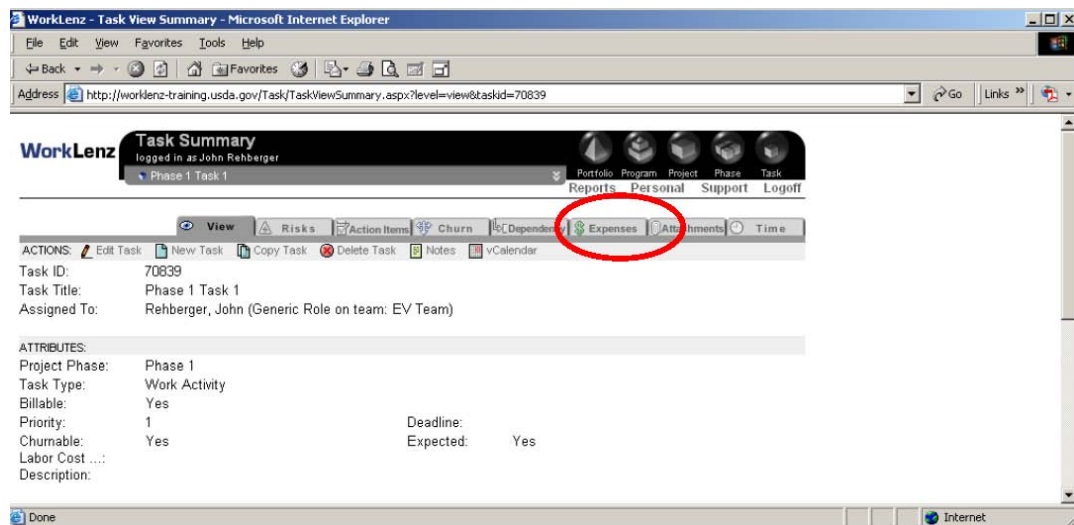
ACTUALS
Start Date: 10-10-2004 mm-dd-yyyy Complete Date: mm-dd-yyyy Duration: 0:00 hours

Save Cancel

Continue to create or edit Phases and Tasks until they are all in WorkLenz. After the Phases and Tasks are all in WorkLenz and have the relevant schedule data loaded in with them, you will then have to enter the planned budget and the actual costs for each of the tasks.

Adding Task-level Budget and Cost Data

Go to one of the tasks that has a budget. Since all of the project costs in this example will be entered as expenses, click on the Expenses tab in the Task Summary. To add the budgeted amount for this task, create a new expense. In the Task Expense screen, enter the task budget by filling out the **bold** items and adding the “Estimated Expense Date” and the budgeted “Estimated Amount”. “Save” when done.



As the project proceeds, you will have to add or update the expenses in the tasks. To do so, in the Task Expense screen add the “Actual Expense Date” and the “Actual Amount” as the expenses for this task are incurred. This applies to both external expenses (e.g., contractors or purchased services) and internal expenses (e.g., FTE staff costs). “Save” this screen when done.

WorkLenz - Task Expense - Microsoft Internet Explorer

Address: <http://worklenz-training.usda.gov/Task/TaskExpenseAdmin.aspx?action=edit&taskId=708398&eid=79314>

WorkLenz
logged in as John Rehberger

Phase 1 Task 1

Portfolio Program Project Phase Task
Reports Personal Support Logoff

Items in Bold are required!
NOTE: When selecting expense type of mileage, use your company's multiplier to determine a dollar figure for the amount field.

Expense Title: Staff cost

Person: Rehberger, John (Generic Role on team: EV Team)

ATTRIBUTES

Type: Other

Category: SS - Personnel

Payment Type: Other

Vendor:

Location:

Description:

ESTIMATES

Estimated Expense Date: 10-11-2004 mm-dd-yyyy Estimated Amount: \$1,174.20 ###... (no commas)

ACTUALS

Actual Expense Date: mm-dd-yyyy Actual Amount: ###... (no commas)

REIMBURSEMENT

Reimbursable? No Reimbursable Amount: ###... (no commas)

Save Cancel

Computing the EVM SPI and CPI Indices

To create the Schedule Performance Index (SPI) and Cost Performance Index (CPI) indices, you have to “baseline” the investment/project.² To do so, go back to the Project Summary screen and click on the “Admin” button.

WorkLenz - Project Summary - Microsoft Internet Explorer

Address: <http://worklenz-training.usda.gov/project/projectssummary.aspx?projid=1858>

WorkLenz
logged in as John Rehberger

Test EV Project

Portfolio Program Project Phase Task
Reports Personal Support Logoff

Project Last Updated : 10-13-2004 at 12:53 PM

ACTIONS: Update Now Edit Delete News
Dependencies Risk Notes
Attachments Admin New Phase

INFO

Project Title: Test EV Project
Type: Major Select
Category: Growth
Status: Open
Estimated Start Date:
Actual Start Date:

Forecast Snapshot

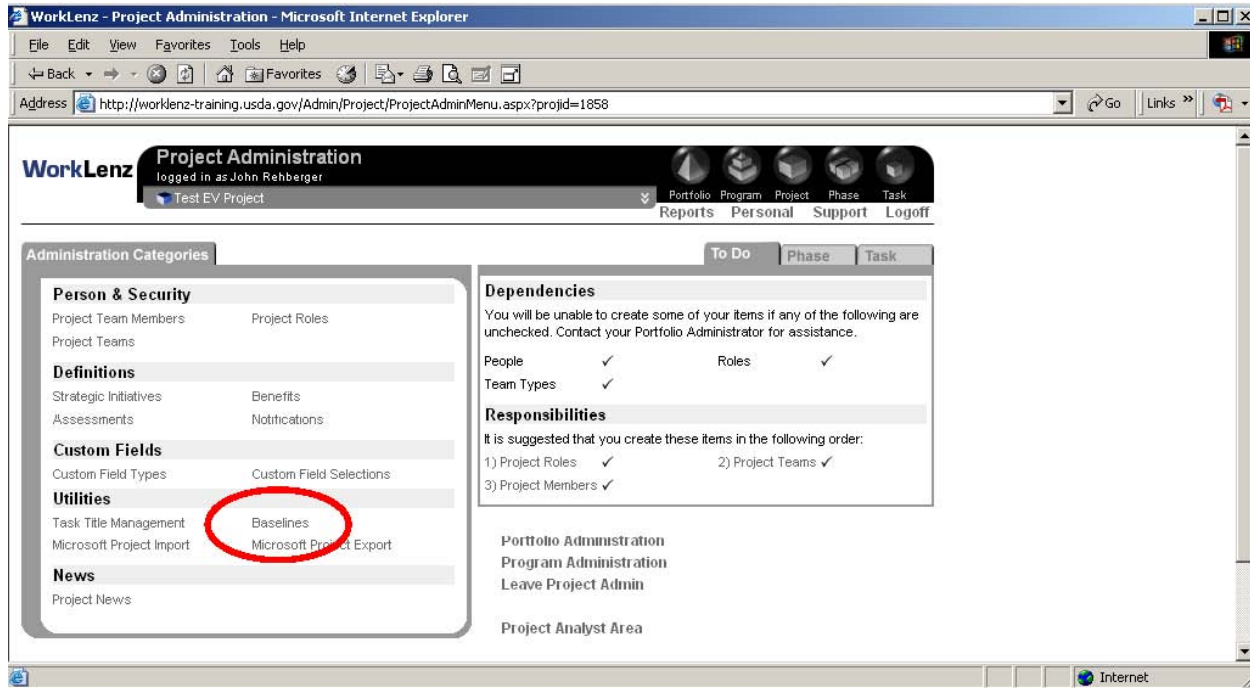
Timeline

show only open work

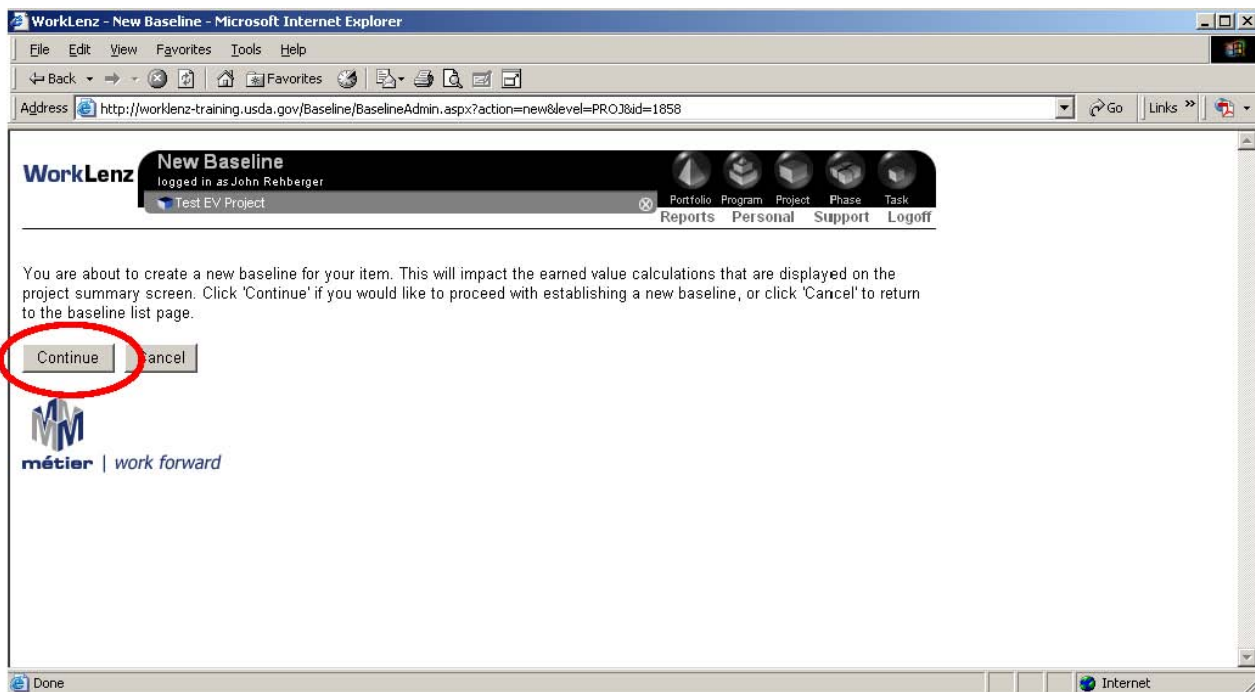
2004	2005				
3rd Quarter	4th Quarter				1st Quarter
August	September	October	November	December	January
Phase 1					
Phase 2					
Phase 3					

² A baseline represents the established schedule, budget, and estimated costs associated with a project plan. A baseline establishes the initial schedule and budget from which earned value metrics are calculated.

Then click on “Baselines” to create an EV baseline.

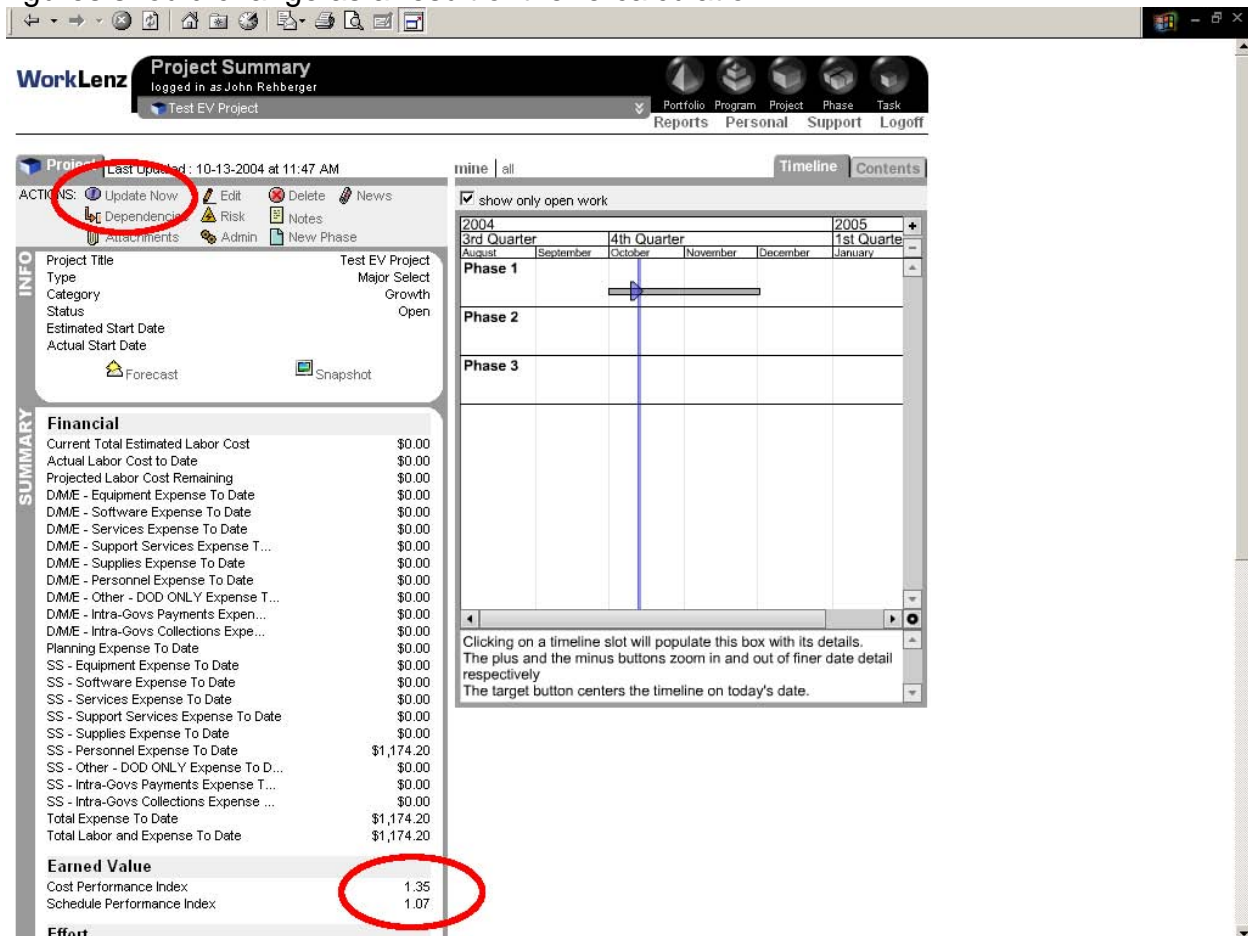


If a baseline does not yet exist, create a “New Baseline”. Click “Continue” to create a new baseline. A new baseline will be created for this project/investment.



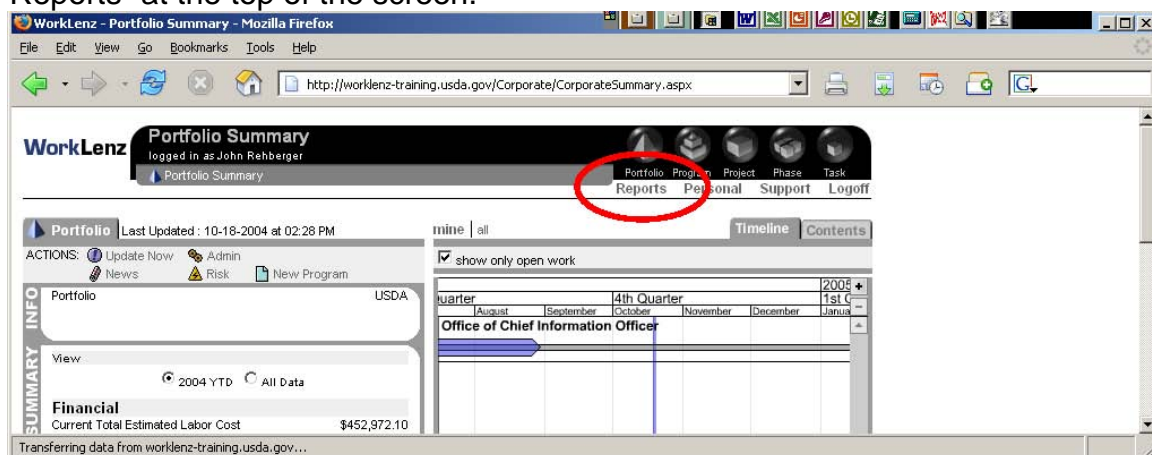
Once the project/investment has been baselined, the SPI and CPI are computed automatically each night and shown on the Project Summary screen.

To see how the SPI and CPI are immediately modified when you make task-level changes, go back to the Project Summary screen and click on the “Update Now” button on the Project Summary screen to re-calculate the SPI and CPI. The CPI and SPI figures should change as a result of the re-calculation.

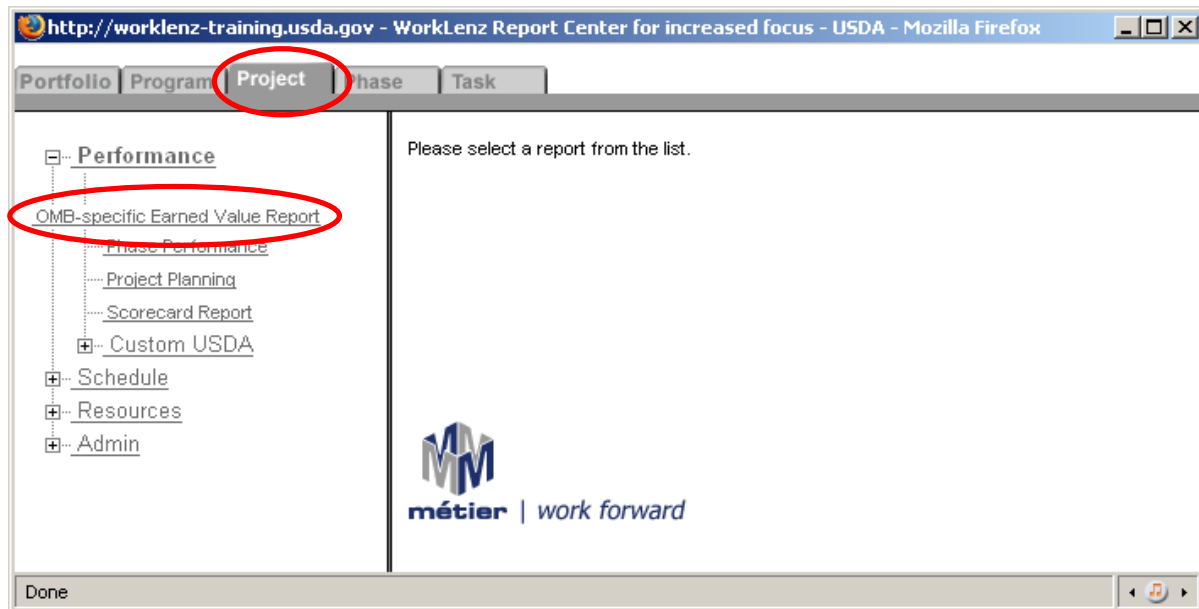


Comprehensive EV Report

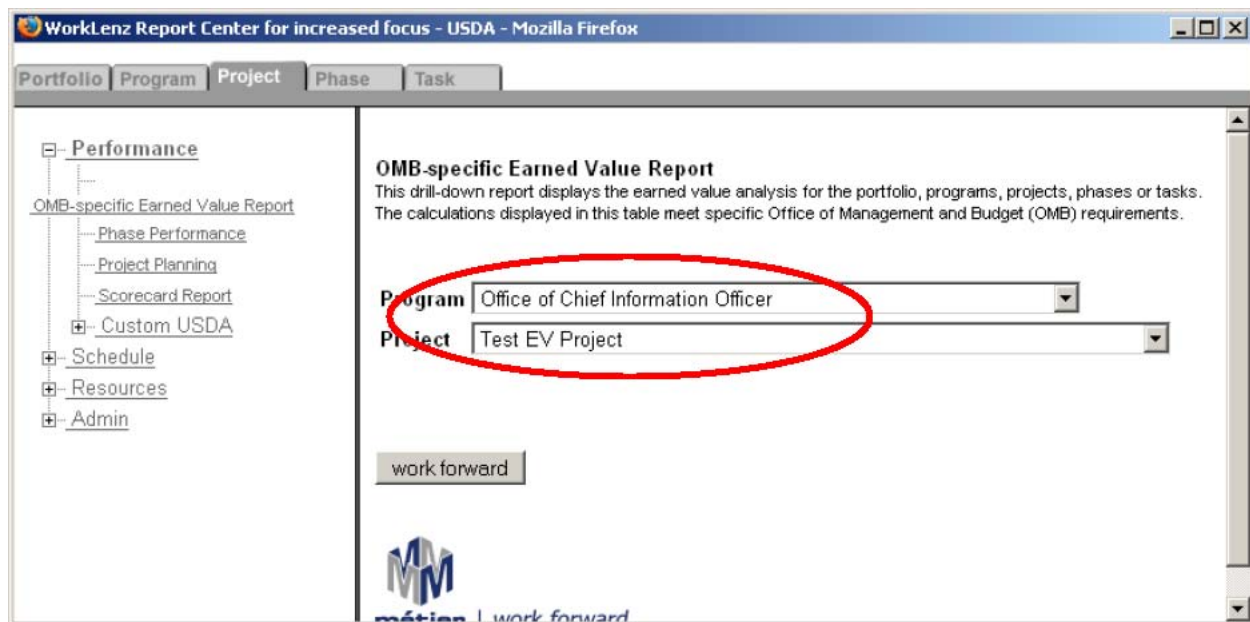
WorkLenz also provides a more comprehensive EVM report. To access it, click on “Reports” at the top of the screen.



Then click on one of the tabs on the top of the pop-up screen. For example, to get a Project-level EVM report, click on the “Project” tab. Then click on the box next to the “Performance” menu item until the “OMB-specific Earned Value Report” menu item shows up. Then click on this menu item.



Click on the relevant “Program” and “Project” level from the drop-down boxes.



Then click on the “Work Forward” button to create the comprehensive EVM report that includes various EV computations (e.g., SPI, CPI, BAC, etc.).

WorkLenz Report - Project : OMB-specific Earned Value Report - Tuesday, October 19, 2004 - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

OMB-specific Earned Value Report

Project Test EV Project

Earned value		Value
Baseline Date		10-12-2004
Budget At Complete (BAC)		\$2174.20
Actual Cost of Work Performed (ACWP)		\$1174.20
Budgeted Cost of Work Performed (BCWP)		\$1587.10
Budgeted Cost of Work Scheduled (BCWS)		\$1693.85
Cost Variance (CV)		\$412.90
Cost Variance Percent (CV%)		26.82%
Cost Performance Index (CPI)		1.35
Schedule Variance (SV)		-\$106.75
Schedule Variance Percent (SV%)		-6.30%
Schedule Performance Index (SPI)		0.94
Estimate At Complete Best (EAC1)		\$1608.56
Estimate At Complete Worst (EAC2)		\$1637.77
Variance At Complete Best (VAC1)		\$565.64
Variance At Complete Worst (VAC2)		\$536.43
Variance At Complete Percent Best (VAC1%)		26.02%
Variance At Complete Percent Worst (VAC2%)		24.67%
Expected Completion Amount Average (ECAa)		\$446.97

Phases		BAC	CPI	SPI	Baseline Date
Phase 1		\$2174.20	1.35	0.94	10-12-2004
Phase 2		\$0.00			Not Baselined
Phase 3		\$0.00			Not Baselined

Observations

Below are a few key observations about using WorkLenz for EV management:

Task Management and Expenses

- You have to return to the Tasks in WorkLenz to add and modify the schedule, percent complete, and expense data as the project and tasks proceed.
- **Unlike before, if you are going to use the “treat-staff-costs-as-expenses” approach as described above, the Task-level “Percent Complete” drop-down list has a significant influence over the reported SPI figures.** The higher the reported percentage completed, the higher the SPI will be.
- Also, if you are going to use the “treat-staff-costs-as-expenses” approach as described above, avoid putting in staff hour estimates in the Task-level “Duration” boxes.

CPI Calculation

The task-level expense “Estimated Amount” and “Actual Amount” items have a significant influence over the reported CPI figure. The closer these items are to being the same, the closer the CPI will be to 1.0. An Actual Amount that is greater than the Estimated Amount will cause the CPI to go down.

Change in Expense Methodology

Unlike before, you no longer need to put long-term expenses for a task into monthly “buckets”. The updated methodology assumes that all task-related costs are spread evenly throughout the life of the task. If you currently have expenses broken out in these monthly “buckets”, you do not have to change anything. You just will not have to create these “buckets” anymore in the future.

Updating WorkLenz

OCIO is currently requiring weekly EVM updates for selected major investments/projects that have significant DME spending. Contact your OCIO/PPMD CPIC analyst if you are not sure if this section applies to you or not.